

Claims

- [c1] 1. An arrangement for determination of the maximum allowable velocity (V_{\max}) for a vehicle traveling downhill, the arrangement comprising:
- a vehicle comprising a wheel brake system and at least one additional brake function;
 - a detector that detects a value of current inclination (α) of the vehicle in relation to horizontal; and
 - a computing means for determining a value relating to the maximum allowable long-term velocity (V_{\max}) of the vehicle in dependence on at least the value of current inclination (α) and in consideration of the current braking ability of the at least one additional brake function.
- [c2] 2. The arrangement as recited in claim 1, further comprising:
- the computing means being connected to an indicator device having a capability to indicate a computed value (v_{\max}) indicative of a maximum allowable velocity to the driver of the vehicle (1).
- [c3] 3. The arrangement as recited in claim 1, further comprising:
- the computing means being arranged for automatic activation of the at least one additional brake function in dependence of the maximum allowable long-term velocity (v_{\max}).
- [c4] 4. The arrangement as recited in claim 1, further comprising:
- the at least one additional brake system comprises a retarder arranged on the vehicle.
- [c5] 5. The arrangement as recited in claim 1, further comprising:
- the at least one additional brake system comprises a motor-brake arranged in the vehicle.
- [c6] 6. The arrangement as recited in claim 1, further comprising:
- the vehicle being arranged to carry a load and having a detector for detection of a measure corresponding to the weight of the load, which measure is used at determination of the maximum velocity of the vehicle (v_{\max}).
- [c7] 7. A method for determination of the maximum allowable velocity (V_{\max}) for a

vehicle (1) when going downhill, the method comprising:
 providing a vehicle having a wheel brake system and at least one additional
 brake function;
 detecting a current inclination (α) of the vehicle in relation to horizontal;
 determining the current braking capability of the at least one additional brake
 function; and
 determining a value (V_{\max}) relating to the maximum allowable long-term
 velocity of the vehicle in dependence of at least the value of said inclination
 (α) and the current braking ability of said at least one additional brake
 function.

[c8] 8. The method as recited in claim 7, further comprising:
 indicating the value (v_{\max}) of the maximum allowable long-term velocity of
 the vehicle to a driver of the vehicle.

[c9] 9. The method as recited in claim 7, further comprising:
 activating automatically the at least one additional brake function in
 dependence of the value (v_{\max}) of the maximum allowable long-term velocity
 of the vehicle.

[c10] 10. The method as recited in claim 7, further comprising:
 utilizing a detector to detect a measure that indicates the current load of the
 vehicle, and
 determining the value (v_{\max}) concerning the value (v_{\max}) of the maximum
 allowable long-term velocity of the vehicle in dependence of the indicated
 measure of the load of the vehicle.